MULTILAYER ELECTRODE STRUCTURE AND METHOD FOR FORMING MULTILAYER ELECTRODE STRUCTURE FOR A FLAT PANEL DISPLAY DEVICE

ABSTRACT OF THE DISCLOSURE

A multilayer electrode for a flat panel display device and a method for forming a multilayer electrode for a flat panel display device. In one embodiment, the multilayer electrode is formed by depositing a metal alloy layer. After the deposition of the metal alloy layer, the present embodiment deposits a protective layer above the metal alloy layer to form a multilayer stack. The present embodiment then subjects the multilayer stack to a cleansing process to remove contaminants. Subsequently, the present embodiment etches the multilayer stack to form the multilayer electrode for the flat panel display device. In another embodiment, the present invention provides a method for forming a multilayer stack with reduced formation of an intermetallic compound. In such an embodiment, the present embodiment deposits a first metal alloy layer above a substrate. Next, the present embodiment forms a barrier layer above the first metal alloy layer. In this embodiment, the barrier layer is adapted to prevent the formation of an intermetallic compound within the first metal alloy layer. Next, the present embodiment deposits a second metal alloy layer above the barrier layer. In so doing, the barrier layer also prevents the formation of the intermetallic compound within the second metal alloy layer.